

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A medical solution comprising:  
a first single solution comprising bicarbonate and carbonate in such proportions that ~~the~~ a partial pressure of carbon dioxide,  $\text{CO}_2$ , in the first single solution is of the same order of magnitude as ~~the~~ a partial pressure of carbon dioxide,  $\text{CO}_2$ , ~~of in~~ in the atmosphere~~[[,]]~~<sub>i</sub>; and  
a second single solution comprising an acid,  
wherein said first and second single solutions~~[[,]]~~ are mixed after terminal sterilization ~~and up on use, are to be mixed~~ to form a final solution, wherein said second single solution has a pH of 1.0 - 1.5~~[[,]]~~ and ~~wherein the~~ said final solution has a pH of 7.0 - 7.6.
2. (Currently Amended) A medical solution according to claim 1, where said first single solution has a pH of 10.1 - 10.5, ~~preferably 10.3~~.
3. (Currently Amended) A medical solution according to ~~any of~~ claim 1 or 2, wherein said second single solution has a pH of 1.3.
4. (Currently Amended) A medical solution according to ~~any one of the previous claims~~ claim 3, wherein the second single solution comprises HCl.
5. (Currently Amended) A medical solution according to ~~any one of the previous claims~~ claim 1, wherein the medical solution further comprises one or more osmotic agents.

6. (Currently Amended) A medical solution according to claim 5, wherein said one or more osmotic agents are chosen ~~among~~ from the group including: glucose, glucose polymers, glycerol, xylitol, fructose, amino acids, peptides, proteins, amino sugars, N-acetyl glucose amine (NAG), or combinations thereof.

7. (Currently Amended) A medical solution according to claim 5, wherein ~~the said~~ one or more osmotic agents, ~~before being mixed into the final solution,~~ are arranged in said second single solution before said second single solution is mixed with said first single solution to form the final solution.

8. (Currently Amended) A medical solution according to claim 5, further comprising a third single solution, and wherein said one or more osmotic agents ~~agent,~~ ~~before being mixed into said final solution,~~ are arranged in a said third single solution, prior to the formation of the final solution.

9. (Currently Amended) A medical solution according to claim 8, further comprising a fourth single solution, and wherein said one or more osmotic ~~agent~~ agents ~~also~~ are arranged in a said fourth single solution.

10. (Currently Amended) A medical solution according to claim ~~8 or~~ 9, wherein said one or more osmotic agents in said third and/or fourth single solution is comprise glucose and/or glucose polymers giving rise to glucose degradation products (~~GDPs~~) during terminal sterilization and/or storage, and wherein said third and/or fourth single solutions comprise an acid and ~~has~~ have a pH of at least 1.8, ~~preferably at least 2.9,~~ and a pH of at most 2.6, ~~preferably at most 2.5, and most preferably at most 2.3.~~

11. (Currently Amended) A medical solution according to ~~any one of the previous claims~~ claim 1 or 5, wherein the medical solution further comprises one or more electrolytes.

12. (Currently Amended) A medical solution according to claim 11, wherein said one or more electrolytes comprise one or more of the ions of sodium, calcium, potassium, magnesium, and/or chloride.

13. (Currently Amended) A medical solution according to claim 11 ~~or 12~~, wherein said one or more electrolytes, ~~before being mixed into the final solution, is/are~~ are arranged in said first single solution, prior to the formation of the final solution.

14. (Currently Amended) A medical solution according to ~~any of claims 11-13~~ claim 11, wherein said one or more electrolytes, ~~before being mixed into the final solution, is/are~~ are arranged in said second single solution, prior to the formation of the final solution.

15. (Currently Amended) A medical solution according to ~~any of claims 11-14~~ claim 9, further comprising one or more electrolytes, and wherein said one or more electrolytes, ~~before being mixed into the final solution, is/are~~ are arranged in said third single solution and/or said fourth single solution, prior to the formation of the final solution.

16. (Currently Amended) A medical solution according to ~~any one of the previous claims~~ claim 1, wherein the ~~different~~ first and second single solutions are provided in ~~different~~ first and second compartments in a multi-compartment bag before being mixed to form the final solution.

17. (Currently Amended) A method for producing a medical solution according to ~~any of the previous claims~~ claim 1, said method comprising:

providing said first and second single solutions in separate compartments[[],];  
and thereafter

~~terminal~~ terminally sterilizing said first and second single solutions.

18. (Currently Amended) A method according to claim 17, wherein ~~the said step of terminally sterilizing terminal sterilization is~~ comprises heat sterilization and/or radiation sterilization.

19. (Currently Amended) A method according to ~~any of claims~~ claim 17-  
~~or 18. wherein the said step of terminally sterilizing terminal sterilization is~~ comprises  
heat sterilization at a temperature of at least 100°C, ~~preferably at least 121°C.~~

20. (Currently Amended) A method according to ~~any of claims 17-19~~  
claim 17, wherein said first and second single solutions, after terminal sterilization ~~and~~  
~~up on use~~, are mixed to form a final solution.

21. (Currently Amended) A method according to ~~any of claims 17-19~~  
claim 27, wherein said first, second<sub>1</sub> and third single solutions, after terminal sterilization  
~~and up on use~~, are mixed to form a final solution.

22. (Currently Amended) A method according to ~~any of claims 17-19~~  
claim 28, wherein said first, second<sub>1</sub> and fourth single solutions, after terminal  
sterilization ~~and up on use~~, are mixed to form a final solution.

23. (Currently Amended) A method according to ~~any of claims 17-19~~  
claim 28, wherein said first, second, third<sub>1</sub> and fourth single solutions, after terminal  
sterilization ~~and up on use~~, are mixed to form a final solution.

24. (Currently Amended) A method according to ~~any of claims 17-23~~  
claim 17, wherein the ~~different~~ first and second single solutions are provided in ~~different~~  
first and second compartments in a multi-compartment bag before being mixed to form  
the final solution.

25. (Currently Amended) A multi-compartment bag comprising the  
medical solution according to ~~any one of claims 1-16~~, 8, or 9.

26. (Canceled)

27. (New) A medical solution according to claim 8, wherein the first, second,  
and third single solutions are provided in first, second, and third compartments in a  
multi-compartment bag before being mixed to form the final solution.

28. (New) A medical solution according to claim 9, wherein the first, second,  
third, and fourth single solutions are provided in first, second, third, and fourth  
compartments in a multi-compartment bag before being mixed to form the final solution.

29. (New) A method according to claim 21, wherein the first, second, and third  
single solutions are provided in first, second, and third compartments in a multi-  
compartment bag before being mixed to form the final solution.

30. (New) A method according to claim 23, wherein the first, second, third,  
and fourth single solutions are provided in first, second, third, and fourth compartments  
in a multi-compartment bag before being mixed to form the final solution.